E1001

ORIGINAL

Attachment H

ORIGINAL

COVER SHEET (PAGE 1 of 2)

May 1998 CALFED ECOSYSTEM RESTORATION PROPOSAL SOLICITATION

Proposal Title: Moving Genetic Molecular Analysis From The Research Lab Into Fish Harvest Management

- Applicant Name: Institute for Fisheries Resources
Mailing Address: P.O. Box 29196, San Francisco, CA 94129-0196
Telephone: 415-561-5080
Fax: 415-561-5464

- Amount of funding requested: $ 136,915 for 1 years

Indicate the Topic for which you are applying (check only one box). Note that this is an important decision: see page __ of the Proposal Solicitation Package for more information.

- ☐ Fish Passage Assessment
- ☐ Fish Passage Improvements
- ☐ Floodplain and Habitat Restoration
- ☐ Gravel Restoration
- XX Fish Harvest
- ☐ Species Life History Studies
- ☐ Watershed Planning/Implementation
- ☐ Education
- ☐ Fish Screen Evaluations - Alternatives and Biological Priorities

Indicate the geographic area of your proposal (check only one box):

- ☐ Sacramento River Mainstem
- ☐ Sacramento Tributary: _____
- ☐ Delta
- ☐ East Side Delta Tributary: _____
- ☐ Suisun Marsh and Bay
- ☐ San Joaquin Tributary: _____
- ☐ San Joaquin River Mainstem
- ☐ Other: _____
- XX Landscape (entire Bay-Delta watershed)
- ☐ North Bay: _____

Indicate the primary species which the proposal addresses (check no more than two boxes):

- ☐ San Joaquin and East-side Delta tributaries fall-run chinook salmon
- XX Winter-run chinook salmon
- XX Spring-run chinook salmon
- ☐ Late-fall run chinook salmon
- ☐ Fall-run chinook salmon
- ☐ Delta smelt
- ☐ Longfin smelt
- ☐ Splittail
- ☐ Steelhead trout
- ☐ Green sturgeon
- ☐ Striped bass
- ☐ Migratory birds

COVER SHEET (PAGE 2 of 2)

May 1998 CALFED ECOSYSTEM RESTORATION PROPOSAL SOLICITATION

Indicate the type of applicant (check only one box):

☐ State agency	☐ Federal agency
☐ Public/Non-profit joint venture	☒ Non-profit
☐ Local government/district	☐ Private party
☐ University	☐ Other: _____

Indicate the type of project (check only one box):

☒ Planning	☐ Implementation
☐ Monitoring	☐ Education
☐ Research	

By signing below, the applicant declares the following:

(1) the truthfulness of all representations in their proposal;

(2) the individual signing the form is entitled to submit the application on behalf of the applicant (if applicant is an entity or organization); and

(3) the person submitting the application has read and understood the conflict of interest and confidentiality discussion in the PSP (Section II.K) and waives any and all rights to privacy and confidentiality of the proposal on behalf of the applicant, to the extent as provided in the Section.

William T. Bradley

(Signature of Applicant)

II. Executive Summary

a. Project title: ***Moving Genetic Molecular Analysis From The Research Lab Into Fish Harvest Management***

b. Project description and primary biological/ecological objective

The goal of this project is to develop a politically neutral plan and program to advance the use of genetic molecular analysis (GMA) - in this case, the analysis of the "microsatellite" markers found in the DNA of salmon - from its present research condition to its potential application to fish harvest management. The primary ecological objective of the proposed plan and program is to dramatically strengthen our ability to identify salmon stocks *during* the fishing season in order to guide fishing effort away from species-of-concern and, thereby, to both accelerate recovery efforts and to stabilize California's salmon fisheries.

c. Approach/tasks/schedule

The project will be carried out in four general phases, as follows:

- organize a project advisory committee (PAC) representative of all the agencies and stakeholder groups with direct regulatory, economic and scientific interests in the implementation of, and compliance with, State and federal endangered species acts (ESA); regulation of salmon fisheries; and the conduct of GMA research.

- design and implement a survey of all such agencies and stakeholders to identify all legitimate issues, management needs, and research interests ("agendas") which need to be considered in a plan and program to articulate and foster the evolution of GMA from its present-day research status toward its prospective application in fish harvest management. Particular emphasis shall be given to seeking the views and, to the extent possible, the "buy-in" by fishermen and fisheries regulators to the previously-unpopular concept of "in-season" regulatory change.

- (recognizing that present-day research facilities are not appropriate venues for conducting GMA at the large scale necessary to support fish harvest management), utilize the PAC and the information gathered in the survey described above to produce a "first cut" plan for a GMA production facility, including identification of its requirements for governance, staffing, timely access to research products, compliance with relevant environmental laws, and - importantly - financing.

- with the assistance and concurrence of the PAC, complete and present the plan, program and production facility proposal to the appropriate decision-makers and prospective funders and cooperators, including the fishing fleet and members of the California congressional delegation.

-

d. Justification for project and funding by CalFed

Much of the justification for the Central Valley Project Improvement Act of 1992 was the rebuilding of healthy salmon populations *capable of supporting sustainable recreational and commercial salmon fisheries*. Much of the urgency of the CVPIA stemmed from the rapid weakening of Central Valley salmon stocks, particularly Sacramento winter run chinook salmon. This same justification and urgency carries over into the CalFed program and ERPP. There is little doubt the commitment of CalFed's public and private partners will expand habitat opportunities and protection for the Valley's at-risk salmon - through land and water purchases, habitat expansion, and the improvement of land- and water use operations. It is less certain, however, that these collective actions will assure sustainable recreational and commercial salmon fisheries. It is increasingly difficult to harvest salmon within the confines of the Endangered Species Act - the implementation of the ESA with regard to Central Valley salmon stocks and the traditional fisheries for them. We must find new fish harvest management tools - *tools that can shape fisheries that are more responsive to "weak stock" protection needs than any now available to us* - if we are to achieve our dual California objectives of salmon stock rebuilding *and* sustainable salmon fisheries in the years ahead.

e. Budget costs and third party impacts

The cost of the proposed project is estimated to be $179,415. The proposed CalFed share of the cost is $136,915. Details of the budget are presented in Section V, Table 1.

The third party impacts are difficult to pin-point at this time, but they would be of a generally positive nature: greater cooperation between the research and resource management communities and, most importantly, a greater likelihood of sustainable fishing.

f. Applicant qualifications

The Institute for Fisheries Resources (IFR) has successfully completed a number of fish conservation projects in recent years, including a 1997 assessment of the potential for admitting spring-run chinook salmon into the Butte Creek canyon (National Fish and Wildlife Foundation Cooperative Agreement 1425-96-FG-81-07011). Kier Associates has successfully completed several large-scale anadromous fish habitat evaluation, restoration planning, and data management projects for State and federal clients, including the California Department of Fish and Game and U.S. Bureau of Reclamation.

g. Monitoring and data evaluation

The project will contribute to fish harvest management programs now in place at the California Department of Fish and Game, National Marine Fisheries Service, Pacific Fishery Management Council, and the Pacific States Marine Fisheries Commission. The project products would appear to be of interest to CalFed's emerging comprehensive

monitoring, assessment and research program (CMARP), and the IFR team will inform and seek guidance from CMARP throughout the project.

h. Local support/coordination with other programs/compatibility with CalFed objectives

Support for the project has been expressed by the California Department of Fish and Game (Tim Farley and Alan Barocco, Inland Fisheries Division), National Marine Fisheries Service (Dan Viele, Southwest Region), California Water Commission (Stan Barnes), Pacific Coast Federation of Fishermen's Associations; Golden Gate Fishermen's Association (the party boat fleet) and the University of California's Bodega Marine Laboratory. Support for the project concept has been expressed by the Department of Water Resources (Randy Brown) and U.S. Bureau of Reclamation (Ken Lentz). We would expect, but have not yet had time to obtain, support from the U.S. Fish and Wildlife Service.

III. **Title Page**

a. Title of Project

Moving Genetic Molecular Analysis From The Research Lab Into Fish Harvest Management

b. Name of applicant/principal investigator

Institute for Fisheries Resources - applicant (project contract, fiscal agent)
William M. Kier, William M. Kier Associates - principal investigator

c. Type of organization

Tax-exempt 501(c)(3) non-profit public service research organization

d. Tax identification number

94-3176524

e. Participants

Institute for Fisheries Resources	Department of Water Resources
Golden Gate Fishermen's Assoc	U.S. Bureau of Reclamation
Department of Fish and Game	California Water Commission
National Marine Fisheries Service	UC-Davis, Bodega Marine Lab
U.S. Fish and Wildlife Service	CSU-San Francisco
Pacific Coast Federation of Fishermen's Associations	CMARP

IV. Project description

a. Project description and approach

The elements of this project are the happy, virtually accidental, outcomes of the State-Federal-UC-Steinhart Aquarium Winter-Run Chinook Salmon Captive Broodstock (WRCCB) program. The program was begun quite literally in a panic in the early 1990s, as Sacramento River winter run chinook salmon numbers fell from more than 2,000 to less than 200 fish. Artificially-propagated winter run juveniles were sped to hastily-constructed rearing facilities, first at UC's Bodega Marine Laboratory and, then, San Francisco's Steinhart Aquarium, to assure that should drought conditions worsen on the Sacramento River there would nonetheless be winter-run genetic material with which to re-seed the river in happier times.

There were so few fish involved, however, the WRCCB's managers became concerned about the program's potential for seriously inbreeding these winter-run survivors. To keep track of family lineage, to prevent inbreeding, Bodega Marine Lab (BML) researchers turned to new genetic molecular analysis (GMA) methods - with astonishing results. Not only did the methods prove successful for keeping the winter-run families separate, but further analysis showed dramatic differences between the winter-run's DNA "microsatellite" markers and those of other Central Valley salmon species.

In April, 1997 salmon fisheries managers launched an early-season fishery off San Luis Obispo, on the theory that contact with weak Klamath River chinook stocks would be extremely limited then and there. They were right about the Klamath River fish, very few of which appeared in that early-season harvest. Unfortunately, there were a great number of Sacramento winter-run chinook in the area and several of them were caught by the fishery before it was shut down. The Sacramento winter-run were identified both by tissue gel electrophoresis analysis by the NMFS Seattle lab and by Bodega Lab's GMA methods. The Bodega Lab work suddenly drove home to fishermen and managers, alike, just how quickly and affordably salmon stock identifications could be made - fast enough to make spatial and temporal adjustments to the fishery ***in-season*** to avoid harvesting at-risk stocks.

To appreciate the value of being able to identify stocks of naturally-produced at-risk salmon in time to make in-season adjustments to avoid fishing on them, one need only consider the present situation. Juvenile hatchery salmon are now injected with coded wire tags (CWT) that contain information about each fish's hatchery origin, time of release, etc. The fish's adipose fin is clipped off to signal the presence of the CWT in the fish's snout. When the fisherman catches a fin-clipped fish he surrenders the head to Fish and Game. Fish and Game freezes the head and, as time and personnel permit, digs the tag from the snout, reads the coded information, enters it into data forms and transmits the data to the managers who will recommend the shape of next year's salmon fishing season.

The problem is, by the time this hatcheries-only data is obtained and evaluated, "next year" is often already upon us. Over the past several years CWT data has delivered bad news to fishermen and managers, alike, virtually on the eve of each new fishing season. Revelations that more Sacramento winter-run were taken than earlier believed, or that endangered Columbia river salmon appeared in San Francisco landings *ten months earlier* can, and have, called for Draconian adjustments to the new year's fishing season. Feelings, and political "juices", can run very high at such moments as fishermen face loss of income, boats, homes - and their future.

The fishermen's and managers' experience with the 1997 San Luis Obispo fishery has fired their determination to move GMA from its current research venue into the support of fisheries management. Are Sacramento River winter-run off San Luis Obispo *every* spring? Where are spring-run chinook at that time - or, better, where *aren't* they? Are there significant ocean sectors where virtually only hardy Sacramento River fall-run chinook are found - that could support economic fishing without weak-stock impacts?

These questions and a hundred like them threaten to overwhelm the Bodega Lab's capacity for analysis. In fact, no coherent system of tissue sampling, sample security, ESA compliance, data quality control, management reporting, etc. now exists to guide BML - or Fish and Game or NMFS - in answering management-related questions in order to take California's salmon fisheries to a more informed condition - and, thereby, to assure sustainable salmon fisheries into the future. This project proposes to begin the development of just such a coordinated, cooperative - and *politically neutral* - statewide GMA application system.

The project will proceed in the following manner:

- organize a project advisory committee (PAC)

- survey the PAC-represented agencies and communities to identify the legal requirements, legitimate issues and longer-term desires each has concerning the proposition of moving GMA from the research lab into the salmon harvest management arena.

- organize the survey results into a draft report for the PAC's review and deliberation

- define, at least preliminarily, the regulatory, scientific, and management requirements of a GMA "production" facility sufficient to bolster salmon fisheries management, including the capital, staffing, operations, maintenance and replacement costs of such a facility

- identify funding alternatives for a GMA production facility, including potential partnership or consortium opportunities

- identify issues of facility governance and governance alternatives

- complete a program, acceptable to the PAC, providing a "road map" for moving GMA from the lab into fish harvest management, including the initial elements of a GMA production facility plan, suitable for presentation to the appropriate decision-makers and prospective funders and cooperators, including the fishing fleet and members of the California congressional delegation.

b. Proposed scope of work

The work proposed here will extend over a 12- month period from the award of contract and will culminate in adoption and dissemination of a plan and program for expanding the policy framework and physical facilities necessary to bring genetic molecular analysis into full support of California's salmon harvest management programs.

Task 1. Establish and maintain contact throughout the project with a project advisory committee (PAC)

Within a month of project initiation the IFR team, in close consultation with the Department of Fish and Game, will enlist at least one project advisory committee (PAC) representative from every agency, community and institution having a stake in the proposition of using genetic molecular analysis for affordable, quick-turn-around, and accurate salmon stock identification in support of fish harvest management. The PAC will include, at a minimum, State and federal fish conservation agencies; fishermen's organizations, California universities having established programs of molecular genetic analysis, the water development community and others as appropriate.

Task 2. Survey the PAC-represented agencies and communities

With the guidance of the PAC the IFR team will design a survey, likely including on-site interviews of PAC members and communities, to identify the legal requirements of, and to establish the future desired condition of, an expanded California GMA program from perspectives ranging from fishermen and fisheries managers to members of the research community.
This parameters of the survey will be determined within one month of PAC formation; the survey itself will be completed within six and one-half months thereafter..

Task 3. Organize the survey results into a draft report for the PAC's review

The results of the study conducted under Task 2, above, will be compiled into a draft report of findings and recommendations. The draft report will be disseminated to PAC members for their consideration and comment within nine months of project initiation.

Task 4. Define, preliminarily, GMA production facility requirements

This project recognizes that the current research venue for chinook salmon DNA microsatellite marker analysis, the University's Bodega Marine Laboratory, is neither large enough nor appropriate for the production-level facility that would be required to support California's salmon harvest management program. If GMA is to evolve sufficiently to support fish harvest management, a suitable facility will have to be conceptualized, planned and eventually constructed or contracted for by an appropriate agency or partnership of agency and stakeholder interests. This task would address the legal and institutional issues surrounding moving production-level GMA work from the Bodega Lab to a new facility: How would compliance with the ESA be assured? How would close ties be maintained between the new facility and BML to assure that the harvest management program benefits from research advances and the research community, in turn, remains mindful of the information needs of the management community. The IFR team will complete this legal and institutional analysis within nine and one-half months of the initiation of the project.

Task 5. Identify GMA production facility funding requirements, options

This task address the questions (1) who has the greatest interest in a GMA-supported management future? and (2) who among such interests has the capability to underwrite the operations of a GMA production facility? Implicit here is the fact that fishermen are not the only Californians that would benefit from timely, affordable and scientifically-certain salmon stock identification capabilities. Land- and water-user communities have similar needs and, in some cases, they have resources significantly greater than fishermen with which to address such needs. A preliminary assessment of GMA production facility fiscal needs and funding options would be made within ten months of project initiation.

Task 6. Identify issues of GMA production facility governance

Given the diverse interests that would converge in the creation of a GMA production facility to support California salmon harvest management, and the *need to assure that such a facility conduct its business in just as politically-neutral a manner as possible*, serious thought needs to be given to the nature of the facility's governance. Those most appropriate to provide guidance to the facility's development and operations are by their nature busy people - fisheries managers, science administrators, fishermen, resource user community leaders. What should the overseers qualifications be? How much time will they need to devote to this venture? If significant time is required of them, should they not be compensated for their time? The IFR team will develop draft answers to these questions, for the PAC's consideration, within ten months of project initiation.

Task 7. Prepare final GMA plan and program for presentation to decision-makers, potential funders

Based on the comments received from the PAC members pursuant to their review of the draft products created through Tasks 3, 4 ,5 and 6, the IFR team will finalize the project report in a form suitable for presentation to the State's decision-makers, interested communities and potential funders, including members of California's congressional delegation - who, not incidentally, have provided a good deal of the funds that have supported the work thus far of the Winter-Run Committee and BML's GMA efforts.

The final plan for moving GMA from the research lab into fish harvest management, including first-stage planning elements for a GMA production facility, will be delivered within twelve months of project initiation.

A schedule of project milestones is presented in Table 2. IFR proposes to present the contract administrators with monthly reports of progress on the workplan, project budget condition reports, and progress payment invoices.

c. Location and/or geographic boundaries of the project.

The location of the project extends throughout San Francisco Bay-Delta watershed and the nearshore ocean fishing grounds. In fact, the work proposed here would benefit, as well, salmon conservation needs not of direct concern to the CalFed program, including the conservation of coho and chinook salmon and steelhead in California's coastal watersheds.

d. Expected benefits

The "stressors" addressed here are California's lawful recreational and commercial salmon fisheries. It is the policy of the State and an objective of the CalFed program to assure that these fisheries continue into the years ahead on a sustainable basis. Because of the need to schedule salmon harvest programs around the ESA policy-driven need to protect "weak" stocks of salmon mixed among healthier, harvestable stocks, it is increasingly difficult to plan and execute economically-viable salmon fisheries - sport or commercial. Adding to this fish harvest management difficulty is that the only salmon stock identification tool now generally available to fisheries managers is coded-wire tag (CWT) recovery data - which is not generally available to managers until months following the capture of the tagged fish. There is little opportunity, therefore, to make informed *in-season* changes to the fishing rules - changes that might at once lessen impacts on at-risk stocks and relocate fishing effort to ocean sectors where greater freedom to fish might translate into more bountiful harvests.

Genetic molecular analysis - GMA - holds the promise of providing quick, affordable, and highly-certain identification of the stocks from which salmon captured for either harvest or research purposes have come. With such quick, affordable and certain salmon stock identification will come less adverse impacts on the salmon stocks the CalFed program is striving to rebuild and greater stability and certainty for California's recreational and commercial salmon fisheries.

e. Background and biological/technical justification

The technical rationale for the project is explained fully, in fact, in the preceding sections, particularly "a", the introduction to the project description and approach.

f. Monitoring and data evaluation

As indicated above, the data produced by the measures contemplated in the project would be used by fisheries managers at Fish and Game, National Marine Fisheries Service and their cooperating regional agencies. The IFR project team would also make an earnest, sustained effort to interest CalFed's emerging CMARP managers in tapping into the information that could become available through expanded GMA efforts.

g. Implementability

The proposed project is a planning project which would produce a plan and program viewed by its Project Advisory Committee (PAC) to be, in fact, prudent and desirable.

V. Costs and schedule to implement proposed project

Table 1. Cost Breakdown Table

Project Task	Direct Labor Hours	Direct Salary and Benefits	Overhead Labor	Service Contracts	Material and Acquisition Contracts	Misc. and other Direct Costs	Total Cost	CALFED Cost
Task 1	95	3,607	-0-	9,189	351	1,207	14,353	10,953
Task 2	415	15,780	-0-	40,201	1,535	5,280	62,795	47,920
Task 3	202	7,665	-0-	19,526	745	2,564	30,051	23,276
Task 4	119	4,509	-0-	11,486	439	1,509	17,942	13,692
Task 5	59	2,254	-0-	5,743	219	754	8,971	6,846
Task 6	59	2,254	-0-	5,743	219	754	8,971	6,846
Task 7	237	9,017	-0-	22,972	877	3,017	35,883	27,383
TOTAL	1,186	$45,086	-0-	$114,859	4,385	15,085	$179,415	$136,915

Table 2. Schedule of GMA Project Milestones

Task	Completion date1/
1. Establish project advisory committee	2/01/99
2. Design, execute survey of PAC agencies, stakeholders	7/15/99
3. Organize survey results into a review draft report	9/01/99
4. Define preliminary GMA production facility requirements	9/15/99
5. Identify GMA production facility funding needs, options	10/1/99
6. Identify GMA production facility governance requirements	10/1/99
7. Complete GMA plan, program for presentation to	12/15/99
decision-makers, potential funders	

1/ assumes a 1/01/99 project initiation

Applicant qualifications

The Institute for Fisheries Resources

- Technical participants concerning the impacts on salmon of the Ricelands Habitat Partnership, a Sacramento Valley alternative to the burning of rice stubble and weeds.
- Authors of reports on the costs and benefits of salmon restoration programs on the Columbia and Klamath Rivers (Sacramento River salmon restoration analysis is currently undergoing peer review.)
- Administrators of the current evaluation of salmon access opportunities in Upper Butte Creek under a grant from the National Fish and Wildlife Foundation.

William M. Kier Associates

- Currently serve as fisheries and planning consultants to the California Department of Fish and Game's Category III-funded Battle Creek Chinook Salmon Restoration Plan development
- Currently serve as fisheries consultants to the Institute for Fisheries Resources' NFWF-funded Butte Creek Fish Access project
- Served as the California Advisory Committee on Salmon and Steelhead's principal consultants
- Prepared the *Long Range Plan for the Klamath River Basin Conservation Area Fishery Restoration Program* for the U.S. Fish and Wildlife Service
- Conducted a review of water quality and habitat monitoring programs on private timberlands for the California Department of Fish and Game
- Prepared the Garcia Watershed Restoration Plan for the Mendocino County Resource Conservation District
- Developed the Klamath Resource Information System (KRIS) to support salmon restoration programs on the Klamath and Trinity rivers.

Michael Ward

- Directed research at the University of Washington, School of Fisheries, into the distribution of Pacific salmon in relation to genetic and ocean environment factors.

- Technical leader for Kier Associates in the development of the Battle Creek Salmon and Steelhead Restoration Plan

Guy Phillips, Ph.D.

- Economic and institutional analysis consultant to the San Francisco Estuary Comprehensive Conservation Management Plan

- Economic and institutional consultant for the Santa Monica Bay Restoration and Comprehensive Conservation Management Plan

- California Assistant Secretary for Resources responsible for the design and implementation of the Renewable Resource Investment Fund which included the California Salmon Restoration Program

I-010439

ITEM 10

Agreement No. _____

Exhibit _____

NONCOLLUSION AFFIDAVIT TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID FOR PUBLIC WORKS

STATE OF CALIFORNIA)
)ss
COUNTY OF Marin)

William F. Grader, Jr. (name), being first duly sworn, deposes and says that he or she is Executive Director (position title) of Institute for Fisheries Resources (the bidder),

the party making the foregoing bid that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

DATED: 1 July 1998

By William F. Grader
(person signing for bidder)

BUTSULA U. SUPSAKUN
Commission # 1154733
Notary Public - California
Marin County
My Comm. Expires Sep 7, 2001

(Notarial Seal)

Subscribed and sworn to before me on July 1 1998

Butsula U. Supsakun
(Notary Public)

ITEM 7

NONDISCRIMINATION COMPLIANCE STATEMENT

COMPANY NAME

Institute for Fisheries Resources

The company named above (hereinafter referred to as "prospective contractor") hereby certifies, unless specifically exempted, compliance with Government Code Section 12990 (a-f) and California Code of Regulations, Title 2, Division 4, Chapter 5 in matters relating to reporting requirements and the development, implementation and maintenance of a Nondiscrimination Program. Prospective contractor agrees not to unlawfully discriminate, harass or allow harassment against any employee or applicant for employment because of sex, race, color, ancestry, religious creed, national origin, disability (including HIV and AIDS), medical condition (cancer), age, marital status, denial of family and medical care leave and denial of pregnancy disability leave.

CERTIFICATION

I, the official named below, hereby swear that I am duly authorized to legally bind the prospective contractor to the above described certification. I am fully aware that this certification, executed on the date and in the county below, is made under penalty of perjury under the laws of the State of California.

OFFICIAL'S NAME

William F. Grader, Jr.

DATE EXECUTED	EXECUTED IN THE COUNTY OF
July 1, 1998	San Francisco

PROSPECTIVE CONTRACTOR'S SIGNATURE

William F. Grader

PROSPECTIVE CONTRACTOR'S TITLE

Executive Director

PROSPECTIVE CONTRACTOR'S LEGAL BUSINESS NAME

Insitute for Fisheries Resources

I-010441